Distribution:

RAB MEMBERS	AFFILIATION
Robert Blanchard	Community Member
Gary Collier	Community Member
Bill Gibson	Community Member
Paul Green	Community Member
Carlota Gutierrez	Community Member
Joe Healy	U.S. Environmental Protection Agency
Rev. Tyrone Hicks	Community Member
Alan Hersh	McClellan Business Park
Sandra Kinsey	Community Member
Kevin Depies	CA Department of Toxic Substances Control
Mark Manoff	Local Redevelopment Authority
Colleen Moore	Community Member
Paul Plummer	Community Member
Dan Sharp	Congressmember Ose's Office
Rick Solander	Air Force Base Conversion Agency
James Taylor	CA Regional Water Quality Control Board
Jillian Tullis	Congressmember Matsui's Office
Lola Warrick	Community Member
OTHERS	**AFFILIATION**
David Cooper	US Environmental Protection Agency Public Participation Coordinator
Glenn Kistner	U.S. Environmental Protection Agency
Mark Malinowski	CA Department of Toxic Substances Control
Diane Fowler	CA Department of Toxic Substances Control Public Participation Specialist
Marie Rainwater	Facilitator

Distribution:

OTHER ATTENDEES	AFFILIATION
Patricia Axlerod	Community Member
Barbara Bunn	Because People Care
Denise Gerald	Community Member
Wynn Latta	Sacramento Metro Fire District
John Lwinski	Community Member
Donna McBane	Community Member
Nichole McCann	Community Member
Frank Miller	Community Member
Margie Nelson	Community Member
Robert Ranzenberger	Community Member
Gary Sawyer	Community Member
John Scott	Community Member
Cheryl Stokely	Community Member
Mike Swart	Community Member
Joyce Thorgrimson	Community Member
Ed Vasques	Community Member
Charles Yarborough	Community Member

McCLELLAN MEETING MINUTES

June 20, 2001
McClellan AFB Restoration Advisory Board Meeting
FC Joyce Elementary School

RAB Members in Attendance:

Gary Collier, Community Member
Bill Gibson, Community Member
Carlota Gutierrez, Community Member
Joe Healy, U.S. Environmental Protection Agency
Alan Hersh, McClellan Park
Sandra Kinsey, Community Member
Mark Malinowski, CA Department of Toxic Substances Control
Mark Manoff, Local Redevelopment Authority
Paul Plummer, Community Member
Dan Sharp, Congressmember Ose's Office
Rick Solander, Air Force Base Conversion Agency
James Taylor, CA Regional Water Quality Control Board
Lola Warrick, Community Member

Welcome and Meeting Guidelines

Marie Rainwater, the meeting facilitator, welcomed all attendees to the McClellan Air Force Base (AFB) Restoration Advisory Board (RAB) meeting. Ms. Rainwater reviewed the RAB ground rules.

Introductions

The RAB members introduced themselves to the public.

Review Agenda

Ms. Rainwater reviewed the agenda and the procedures for the public comment period. A handout was available that responded to the public comments made during the March 28, 2001, RAB meeting (attached to the March 28 RAB Meeting Minutes).

Comments on the March 28, 2001, Meeting Minutes

Gary Collier stated that regarding the spill discussion on page 4 of the meeting minutes, it is his recollection that the pipe under discussion was confirmed by the Air Force to be an asbestos fiber pipe. He stated that the Air Force needs to clarify the make up of the pipe, and if it is asbestos, to ensure that it is recorded in the minutes.

> *[Note: The break was in a PVC valve that was attached to a transite pipe. The transite, a common building material, contains inert, non-friable asbestos, which was not damaged.]*

Mark Malinowski responded by stating that asbestos is an inhalation hazard and not an ingestion hazard. Mr. Collier stated that the studies he has reviewed are not conclusive and that this is a significant issue within the community.

The minutes were approved with the above noted clarification.

Cleanup Update

Rick Solander gave an update on the cleanup activities at McClellan (see Attachment 1). This information also has been presented at the recent Base Realignment and Closure (BRAC) Cleanup Team (BCT) meeting. A summary follows.

- Groundwater Treatment Plant (GWTP) and Investigative Cluster (IC) 29 Groundwater Treatment System (GWTS) — On April 23, 2001, 450 to 900 gallons of untreated groundwater was released at the IC 29 GWTS. The Air Force responded, and the regulators were notified. Sampling indicated that no volatile organic compounds (VOCs) were found upstream or downstream of Magpie Creek. The system has since been repaired. A copy of the spill report was made available for review.

- Dudley Boulevard — Additional low level radiological areas were found during McClellan Park construction activities undertaken to remove railroad tracks. The ties and dirt shielded the contamination from detection at the ground surface. The railroad track removal was performed without an Encroachment Permit. During these construction activities, a construction worker climbed over the fence despite radiological warning signs. McClellan Park has re-educated its tenants on the requirement to obtain an Encroachment Permit for any activities that will disturb soil. Alan Hersh stated that several training meetings on protocol have taken place. Mr. Solander commented that training is ongoing for the McClellan Park tenants.

- Confirmed Site (CS) 10 — Plutonium was found at the CS 10 landfill in September 2000. The Air Force continues to ensure that all areas of radiological contamination on base are surveyed and secured. A public meeting was held regarding CS 10 in February 2001. During the excavation of this site, the area will be covered with a large tent.

- West Area Grass Fire — A fire which originated off-base occurred on May 20, 2001, affecting approximately 50 acres in the West Area of the base. Several vernal pools were impacted by the fire and/or by fire response vehicles. Following consultation with the U.S. Fish and Wildlife Department, the Air Force does not expect significant adverse effects on the vernal pool ecological health or population in the West Area. The fire did not go through any cleanup sites. Additional information can be obtained from Air Force Base Conversion Agency's (AFBCA) natural resources consultant, Molly Enloe.

  Mr. Collier asked whether fireworks were stored in the area of the fire and whether the off-gas could have been a factor in increasing the danger in the area. Mr. Solander stated that no fireworks are stored in the area currently; however, the County intends to use the bunkers to store fireworks in the future. The bunkers are concrete buildings and are well insulated. The fire did not reach the bunkers.

Lola Warrick asked which fire agency will be responsible for McClellan Park. Mr. Solander introduced Wynn Latta of the Sacramento Metropolitan Fire District (SMFD). Mr. Latta stated that SMFD assumed jurisdiction for fires at McClellan Park on April 1, 2001, and handled the May fire in the West Area.

- Alternative Dispute Resolution (ADR) — The Air Force and regulators have entered the ADR's formal dispute process to determine groundwater cleanup levels. The regulators have agreed to allow the Air Force to proceed with the Phase III Implementation Plan in accordance with the Interim Record of Decision (IROD). This will allow the installation of additional extraction and monitoring wells now, rather than waiting for settlement of the ADR.

- Radiation Program — The building surveys continue to be performed. Buildings will continue to be released to unrestricted use after closure.

Mr. Solander reviewed the remedial program manager (RPMs) unresolved decisions and the Document Status Report.

Mr. Solander reported that the AFBCA recently published operating procedures for management of lead-based paint. A copy of this report was made available.

Protecting Public Health

Paul Brunner, AFBCA BRAC Environmental Coordinator, introduced a panel that presented information on the Air Force and regulatory activities being undertaken to ensure the protection of public health and the environment during the McClellan cleanup.

Mr. Brunner stated that this will not be the last RAB discussion on public health.

Agency for Toxic Substances and Disease Registry

Dave Green, AFBCA, gave a historical presentation on the U.S. Agency for Toxic Substances and Disease Registry (ATSDR) activities at McClellan. (See Attachment 2). The regional point of contact for ATSDR is William Nelson. The ATSDR Final July 2001 Report was made available for review. A copy is available for public viewing at McClellan's Administrative Record.

Cleanup 5-Year Review

Joe Healy, U.S. Environmental Protection Agency (U.S. EPA), gave a presentation on the McClellan AFB Cleanup 5-Year Review. Mr. Healy explained that this review stems from a Superfund requirement that applies to sites containing contamination at levels above unrestricted use.

Every five years, U.S. EPA and California DTSC reviews the monitoring reports, current information, and community information related to cleanup remedies given in the Record of Decision (ROD) to determine whether the remedies are still protective. New laws, technologies, and information can affect the decision that was made or determine whether these remedies are still effective.

The first 5-Year Review was conducted in October 1999. Recommendations provided in the October 1999 review were to conduct additional confirmation sampling and to implement a monitoring plan for institutional controls in conjunction with base closure. It is the opinion of the U.S. EPA that the remedies in the IROD are protective, but had the following recommendations:

- Continue diligence in monitoring for dioxins in the soil vapor extraction (SVE) system, by keeping abreast of the latest risk assessment methods for dioxins;

- Encourage the Air Force to take a broad view of human health and ecological health for the creeks and flood plain areas;

- Continue to work with the U.S. EPA on the evolving issue of safe cleanup standards for radiation risk.

Mr. Healy stated that the U.S. EPA is pleased with the October 1999 report and that the generated checklist will be very useful for the next review.

Groundwater

James Taylor, California Regional Water Quality Control Board (RWQCB), gave a presentation on groundwater. He explained that the RWQCB is a surface water and groundwater resource protection agency as opposed to a health protection agency.

To protect the public and clean up the solvent contamination that has impacted the groundwater, the Air Force has implemented an aggressive source control plan by installing SVE systems to clean up the solvents in the soil area that is between the surface of the ground and the water table. These SVE systems are centrally located in a hub that addresses 45 sites on base.

To clean contaminated groundwater, the Air Force uses pump-and-treat technology. Approximately 60 groundwater extraction wells have been installed. The treated groundwater is discharged into Magpie Creek. Currently, approximately 1,250 gallons per minute are being discharged.

To track the contaminated groundwater plume, the Air Force has installed 590 monitoring wells and implemented a quarterly monitoring program. The results are included in quarterly monitoring reports that are available for review in McClellan's Administrative Record. None of the contaminated plumes are threatening public drinking water wells.

In 1985, to address off-base water contamination west of McClellan, residents with private wells were hooked up to the City of Sacramento's water supply. Sacramento County has enacted a drilling prohibition zone on new wells west of the base, since private wells can pull the contaminated groundwater further from McClellan.

In 1984, the Groundwater Interim Record of Decision (IROD), which calls for three phases of the cleanup, was signed. The Air Force has implemented Phases I and II. That includes the installation and operation of 60 extraction wells, which has resulted in approximately 90% containment of the groundwater plume. Phase III will address several areas of the groundwater

program where there is not enough data. The Groundwater final ROD will be issued after the resolution of the current dispute concerning the final groundwater cleanup levels.

Mr. Taylor stated that it is the opinion of the RWQCB that the prohibition zone and the current Air Force actions are appropriate in protecting public health.

Emergency Response for Confirmed Site 10

Craig Marchione, AFBCA, gave a presentation on emergency procedures that will remain in place during the CS-10 landfill clean-up project. The excavation will be performed in a very closely monitored specially built tent to control the environment. The project is scheduled to begin in September 2001. During the removal of landfill material and the site clearance process, the Air Force will perform the following:

- Air monitoring inside and outside of the tent;
- Perimeter monitoring to ensure that the contaminants are not getting out of the control zone;
- Groundwater monitoring to ensure that the disturbance does not cause the contaminants to become mobile and enter the groundwater.

The emergency response work plan has been discussed with the SMFD and the Sacramento County Sheriff's Department. These agencies have been briefed on what will be done, how it will be done, and the contaminants that are expected to be found. The list of contaminants found will be updated continually. After the site has been prepared for excavation, there will be a walk-through to ensure that the fire and sheriff departments have a working knowledge of the site.

Mr. Marchione explained that an emergency is defined as fire, loss of containment of chemicals or radioactivity, or an injury. Should an emergency be encountered, the Air Force will call 911, cease all work and equipment operation, assess whether ventilation should be turned off or remain on, begin additional monitoring, and perform immediate air and perimeter monitoring.

Mr. Latta gave a presentation on SMFD response to emergencies. Mr. Latta stated that the fire district has had numerous meetings with the Air Force concerning emergency response and procedures.

Hazardous material response is not a new procedure for the fire department. The procedure involves a hazardous material response team and coordination with the Sheriff's Department, and can include initiating emergency measures outside of the Sacramento region and throughout the state through the Office of Emergency Services (OES) response system.

Mr. Latta stated that the Air Force has been open in sharing information, which has been helpful to the fire district in designing response guidelines.

Questions/Answers

Ms. Warrick asked if Capehart Housing is contaminated. Mr. Solander stated that there is petroleum contamination from former underground storage tanks that were located at the gas station in Capehart Housing. The Air Force is addressing the issue of whether fuel has reached

the groundwater. There are plans to determine the nature and extent of the contamination through sampling.

Mr. Gibson asked who is listed in the CS 10 emergency response plan as being in charge if there is an emergency. Mr. Marchione stated that once the Air Force calls 911, the Sacramento Metro Fire Department will be in charge and will use AFBCA staff as technical experts.

Mr. Collier recalled that last summer there was a fire at a radioactive facility in New Mexico where vegetated matter was consumed, and that radionuclides were released into the atmosphere. He asked whether any radioactive tests were done during the May fire in the West Area. Mr. Latta stated that the fire department did not perform any test for radionuclides; their role was to go in and extinguish the fire. Mr. Solander stated that the fire that occurred on McClellan in May did not go through any radioactively contaminated areas; the only issues were the natural resources. Mr. Collier stated that it was his understanding that there were some areas in the vernal pools that were radioactive. Mr. Solander replied that to his knowledge this was not the case.

Mr. Marchione commented that within the airfield survey area, which contains radioactive contamination, there are also wetlands and vernal pools. This area is far away from the West Area where the fire occurred in May, and there are no indications that the West Area wetlands are radioactively contaminated.

Ms. Kinsey asked what the time frame is for setting up the control zone and whether the public will be notified. Mr. Marchione stated that the timeframe for set up of the control zone is September 2001. The public will be notified when the Air Force commences operations.

Ms. Kinsey asked how and to where the contamination will be transported. Mr. Marchione stated that the contamination will be transported by truck and by train. The transportation route will not go through any residential area around McClellan. The contamination will be sent to one of four areas: Envirosafe in Idaho, Envirocare in Utah, U.S. Ecology in Handford, Washington, or Barnwell in South Carolina.

Mr. Collier asked whether there is any contingency plan should a radioactively contaminated area catch on fire and whether the County will be notified of the radioactive area so that it can take appropriate actions. Mr. Marchione stated that, to date, the Air Force has provided location information but does not have a good delineation of all of the contaminated sites. The information that is known has been shared with the County.

Mr. Hersh asked whether, until the airfield survey is completed, the Air Force would consider communicating with the fire department that this area will be monitored during a fire, to ensure that the procedures are put into place and that the firefighters are protected Mr. Latta stated that such a fire will be handled as a contaminated monitoring assignment.

Mr. Hersh asked whether McClellan or an off-base fire company will respond to "emergencies." Mr. Latta stated that the initial response will be from one of the fire companies on McClellan, but that others will be ready.

Ms. Kinsey asked if the ASTDR included studies on lead-based contamination. Mr. Green stated that the study looked at a variety of contaminants, including lead-based paint. ASTDR also communicated with the community to hear their health concerns, which were then addressed in the report. Ms. Kinsey asked if the California Department of Health Services (DHS) was included in this study. Mr. Green answered yes. Ms. Kinsey requested the point of contact for the state.

Mr. Malinowski commented that DHS was involved in a separate epidemiological study. The ATSDR report did review that study. Mr. Healy commented that the Berkeley, California, office of DHS worked closely with ATSDR, assisting with the toxicology during this study.

RAB Members Advice, Comments, and Announcements

The following are RAB members' advice, comments, and announcements:

Mr. Gibson said the Sacramento Environmental Commission asked various Superfund sites in the area to make a video presentation on Channel 14 on the status of their cleanup efforts, beginning in January 2002.

Mr. Gibson announced that Aerojet has started a community advisory group for its Superfund site.

Dan Sharp reported that Congressmember Ose has requested full funding in the Department of Defense appropriation for cleanup. During the last RAB meeting, it was discussed that there was a bit of a shortfall between what was requested and what was actually necessary for McClellan's cleanup. Congressmember Ose has kept his commitment to seek full funding.

Mr. Gibson complimented the Air Force on the information presented regarding public health.

The facilitator went around the table and asked for RAB comments and concerns, which could be used as topics for future RAB meetings. The results are as follows:

- Continue with the cleanup updates.
- The agencies are willing to educate and engage in dialogue on topics such as institutional controls and the decision processes within the Superfund.
- The RAB should take a position on groundwater cleanup levels or meet to help expedite the dispute process.
- Continue with updates on the cleanup funding.
- Have presentations on creative solutions that would expedite cleanup and enhance economic redevelopment.
- Provide more information on ATSDR.
- The RAB would like to develop priorities for the cleanup.

- The RAB requests additional information on the ADR, the positions under dispute, and how these impact the cleanup schedule.

- Accelerate the cleanup so that new tenants can occupy the base and be sensitive to the economic impacts of cleanup.

- Look at alternative local organizations other than ATSDR to conduct health studies in the area.

- Continue to ensure suitability of lease and transfer of property for intended use.

Public Comment

Members of the public were given the opportunity to make comments. Following is a summary of these comments:

Gary Sawyer stated the discovery of new radiological areas indicates that all the hot spots have not been located. He is amazed that funds have not been used to conduct a public campaign to locate former employees who may have information on past disposal practices. These people must be convinced that the Air Force is interested in what they know.

Frank Miller asked whether Mr. Brunner has presented the cleanup program budget to the RAB and suggested that each RAB member should know the cost of the RAB meetings. Mr. Miller asked why it took so long to put the fire out in May. Mr. Miller expressed his disagreement with the use of a facilitator at the RAB meetings. Mr. Miller stated that ATSDR came out to do its study at the request of the base's neighbors.

Restoration Advisory Board Meeting
Cleanup Update, June 20, 2001

1. UPDATE (includes field activities and other cleanup status):

a) **Ground Water Treatment Plant (GWTP) and Investigative Cluster (IC) 29 GW Treatment System (GWTS).**
   1) On April 23, a release of 450 to 900 gallons of untreated groundwater occurred at the IC 29 GWTS. The Air Force responded and Regulators were notified. Creek sampled upstream and down stream, no volatile organic compounds (VOCs) found. A faulty check valve and flawed containment design, which caused the spill, have been repaired.

   2) The GWTP and IC 29 GWTS is operating at 1250 gpm. Transfer of control systems over to new Telstar radio system is complete. Some enhancements are still in work.

b) **Dudley Blvd. Radiological Site boundary fence expanded.** Additional radiological area found during McClellan Park construction activities to remove railroad tracks. Additional radiological area previous not discovered because of distance (underground) and shielding. Also, during construction activities to remove railroad tracks, construction worker climbed fence (despite radiological warning signs). There is no indication that personnel were overexposed. Exposure levels are equal to flying across country.

   Removal of railroad tracks was performed without an Encroachment permit issued by the Air Force. McClellan Park has re-educated its tenants on the requirement to obtain an Encroachment Permit for any soil disturbing activities.

c) **Confirmed Site (CS)-10 (landfill were plutonium was found) Tent** on order and will arrive in August, assembly will be complete by September.

d) **West Area Grass Fire** occurred on May 20, 2001, affecting approximately 50 acres. The US Fish and Wildlife Service (USFWS) was notified and a field investigation was conducted. A letter was transmitted to Chris Nagano, USFWS Endangered Species Division, providing details of the fire, including a map and photographs of the burned area. Several vernal pools were impacted by the fire and/or by fire response vehicles (Sacramento Metro Fire District). USFWS is evaluating effects on vernal pools. We do not expect significant adverse effects upon the vernal pool ecological health or population in the area. The fire did not go through any cleanup sites.

e) **Alternative Dispute Resolution (ADR) on Groundwater Cleanup Levels.**
   1) Entering formal dispute part of ADR.
   2) Regulators agree to let Air Force proceed with Groundwater Phase III Implementation Plan in accordance with the Interim Record of Decision (IROD)
   3) Phase III implementation allows Air Force to move towards a federal cleanup solution for containment and cleanup of groundwater

f) **Soil Vapor Extraction (SVE) Systems (8 of 14 operational)**
   1) IC 1 Vapor Granular Activated Carbon (VGAC) is operational.
   2) IC 7 VGAC was shut down on 8/1/00 for rebound/site closeout study.
      IC 5 wells have been connected; awaiting acceptance inspection/end of IC 7 rebound study.
   3) IC 23 VGAC is operational.
   4) IC 27 VGAC is operational. IC 25 EW connected and operating as of 5/3/01.

5) IC 31 Catalytic Oxidation (Cat Ox) was shut down on 1/23/01 for rebound.
6) IC 35 Flameless Thermal Oxidation (FTO) is operational.
7) IC 35 VGAC is operational.
8) IC 43 FTO is operational.
9) IC 43 VGAC is operational.
10) T 44 FTO was shut down on 3/30/01 and relocated to PRL 13.
11) OU C1 Cat Ox is operational. PRL-66 vapor well was brought on line 5/3/01.
12) OUD Site S Cat Ox is operational.
13) SSA-2 pad, utilities hook up and well construction is complete. Awaiting repair parts to startup.
14) PRL S-13 pad and well construction completed. Start up testing scheduled this week.

g) **Petroleum, Oils and Lubricants (POL) activities included:**

1) Tank Farm 7 - Remediation of the contaminated soil at TF7 was being accomplished by SVE technology. The SVE has since been relocated to another site. Dolver will be installing a Bioventing system in July and hooking it up to existing SVE remediation wells.
2) Lincoln Receiver Site – work plan to perform soil borings to determine extent of contamination has been submitted to Placer County and CVRWQCB. The CVRWQCB and Placer County have approved the plan. Coordination with Dolver, Placer County, Beale CE and Beale EM is in progress.
3) Bldg. 7C – draft work plan to perform soil borings to characterize any contamination on the west side of the building has been submitted to Central Valley Regional Water Quality Control Board (CVRWQCB). The CVRWQCB approved the plan.
4) Bldg. 7D – work plan to remove the UST and perform soil sampling has been drafted and is in coordination. The CVRWQCB approved the plan. Dolver has submitted an application for the removal of the 10,000-gallon UST.
5) Bldg. 26 – Post-rebound bioventing samples indicate contamination remains. Final report submitted by Brown & Caldwell indicates contamination remains at the site. Bioventing unit in operation.
6) Bldg. 209 – draft work plan to perform soil borings to characterize any contamination on the north and west sides of the building has been submitted to CVRWQCB. GPR indicated a tank along the West Side of the building. No tank was located along the north side of the building. Work plan for 209 North requires minor revisions. Tank, that was previously "removed," was confirmed on the west side. Work plan for removal will be done after funds are received for the 2002 budget.
7) Davis – Post-rebound bioventing samples indicate no contamination remains. Comments on the Draft Work Plan for confirmational soil boring has been incorporated into the Final Work Plan. The CVRWQCB approved the plan with the limitation that the samples are taken when the water level drops below 60' bgs. The water level is still at 30-40' bgs.
8) Bldg. 656 – work plan to perform soil borings to characterize the vertical and lateral extent of contamination. Note: this site was recently reopened by the CVRWQCB. The soil has been stored in roll-off bins for treatment using the SVE at Site S. Although the roll-off bins were connected to the SVE and the system was operational for a limited period, it has not been operational for some time. The roll-off bins were emptied directly onto the ground. High readings on the PID were measured so slotted PVC was placed for future hook up to Site S's SVE. The SVE unit is awaiting a repair part that will take approximately a month.
9) Capehart a.k.a. 5365 – Post-rebound bioventing samples indicate no contamination remains. Bioventing report has been finalized. Work Plan for confirmational soil samples will be drafted and submitted. Temporary EPA ID number obtained for waste. Requested RCRA EPA ID number. USTs were removed on 22 May. Analytical results showed no contamination present. Backfilling 95% complete.

10) Bldg. 445 (motor pool) - UST has been removed. NFA letter from CVRWQCB and County has been received. Site is closed out.
11) Bldg. 900 - two soil borings were completed to determine extent of contamination. Lab and field results confirmed that the site is clean. Closure letter has been submitted to CVRWQCB requesting No Further Action (NFA). CVRWQCB requested we perform a SESOIL analysis based on the old readings.
12) Ground Penetrating Radar (GPR) - Several sites were investigated by ground penetrating radar to verify the presence of previously unidentified USTs. Tanks were identified at 9 sites by GPR. Exploratory excavations at Bldg. 632 were completed and revealed that the tanks had been removed. GPR could not be conducted at Bldg. 26 due to shrubs and trees. Hand auguring was conducted at Bldg. 26 to determine if there is a tank. No tank was found. Per agreement with CVRWQCB, work plans for sampling will only be developed where a tank is found. No work plan will be developed in areas where only an excavation (or nothing) is found. Vent stacks and lines were located at bldg. 412, investigating tank and proper abandonment. No tanks found at Tank Farm 2, but POL found beneath grouted lines. Dig permits are being obtained for exploratory excavations at Bldgs 251 and 332. No tank was found at 1020; however, since the building was extended, a second location was investigated but no tank was found in second location. Tanks were confirmed at 209 (west) and 628.
13) Bldg. 482 – Work Plan for soil sampling has been submitted to CVRWQCB. Prior soil samples showed the contamination was limited to the upper 5'. However, there are no indications whether this contamination was excavated. Sampling is proposed near the two areas of historically highest contamination to determine whether excavation had occurred. CVRWQCB submitted comments to Work Plan. On clarification, they will re-evaluate whether additional samples are necessary for tank closure.
14) Bldg. 655 C and D - It appears that our previous contractor bored on the southeast side of Bldg. 655, instead of on the southwest side where the tanks previously were located. The Work Plan calls for sampling on the proper side. Work Plan has been approved by CVRWQCB. Sampling efforts have begun.
15) Fire Training Area – a 15' x 4' (approximately 2,000 gallon) UST was found abandoned in the Fire Training Area. Piping appears to run from the road to the Environmental Management storage yard and on to the tank, then from the tank to a point further north.
16) Bioventing units – Requesting routine Operation & Maintenance (O&M) for these units.
17) Bldg. 7 and 262 USTs' fuel – Fuel will be pumped and stored at Dolver Co. AST for later use.
18) Bldg. 475 – During a Northridge dig, POL-contaminated soil was encountered. Samples will be taken for future excavations and remediation. Awaiting reply from CVRWQCB whether we need to develop a Work Plan prior to additional work.
19) Bldg. 628 – exploratory excavation uncovered a UST (approximately 5' long, 500 gallons). Lines are still in place. Slight odor present. Hole has been backfilled for later tank removal.
20) Bldg. 1020 – No tank found.
21) Bldg. 367 – received a county letter indicating that they do not want the tanks. Approximately 36,000 gallons of useable diesel is in the tanks. Our plans are to use this fuel for current and future work. Dolver will truck the fuel to a 2,000-gallon AST located at the rock crusher yard for dispensing.
22) Bldg. 251 – Dolver began an exploratory excavation at southeast corner of Building 251 to investigate the presence of solvent USTs that were depicted in a photo located in the McClellan Museum. Excavation was halted in order to determine the levels of contamination encountered directly below the concrete. Soil sample results show 9.3 ppm TPH diesel and no VOC in soil. Exploratory excavation will continue.

h) **Basewide Data Gap (DG) Remedial Investigation (RI).** Field sampling effort began 29 Nov 2000; and is complete. Field activity requirements near buildings 357 & 359 (SA66) have been completed with the development of one additional piezometer. Additional DG 4 sample requirements collected on the flight line are finished.

i) **Radiation Program (in addition to Dudley Site and CS-10 already discussed)**
   1) All confirmed and known potential radiation sites are posted, fenced and/or locked and under AFBCA control.
   2) Airfield Surveys: Working with Fish and Wildlife Service to allow drive through scanning of vernal pools.
   3) Low Lying Area: Awaiting contracting action. Strategy is to perform scan, in-situ gamma spectroscopy measurements, and solid sampling in low-lying areas within 250 feet of runway and taxiway.
   4) Landfill Surveys: Baseline of previous RI works completed, and landfills needing additional work identified. Programming documents have been submitted to AFBCA Headquarters for approval. Strategy was to use scan surveys, solid sampling, in-situ gamma spectroscopy measurements.
   5) Building Surveys: Surveys continue to be performed. Nineteen buildings have been released; five buildings are currently in regulator review; six additional buildings are scheduled for submission for regulator review by the end of June 2001; and five buildings need surveying.

j) **Site Security** upgrades of environmental retained properties are in progress. McClellan Park is also installing fencing and gates to improve airfield perimeter security.

k) **Drainage** channel maintenance and cleaning is routinely performed by Sacramento County. No channel maintenance activity is currently scheduled.

l) **GWMP** 2Q01 Groundwater Monitoring Program began on May 1st with placement of diffusion sampling bags in 142 monitoring wells May 1-10. Sampling of diffusion bags and extraction wells began on May 14th and completed on May 30th. Groundwater level measurements of 567 wells were conducted June 4-7th.

m) **PRL S-033 Removal Action.** We have now removed a total of 550 yards of soil. We are computing the residual risk for the site and awaiting the data validation report from the contractor at this time. We anticipate receiving regulatory approval to backfill the site once these two items are provided to the regulatory agency Remedial Project Managers.

n) **Soil Staging Pile Facility.** Project phase 2 construction will commence in the next month. Thermal desorption demonstration phase is complete and demobilized. Soil washing & Oxidation demo pending.

o) **Wetland delineation** of the west area was verified by the U.S. Army Corps of Engineers (USACOE), and the Agency Review Draft Final delineation report and map will be delivered by June 15, 2001.

p) **Creeks conceptual site model** draft document has been circulated to regulatory RPMs for review. Due date for comments is July 13, 2001. The creeks section of the Radiation Contamination Site Conceptual Model will be provided to the regulatory RPMs for concurrent review when available.

q) **Vernal pool restoration plan** draft document completed. Plan was submitted to US Fish and Wildlife Service (USFWS) in January with request for Section 7 consultation. Plan has been approved by the USACOE. Target date for restoration is autumn 2001. The USFWS has determined that the impacted vernal pool is hydrologically connected to a nearby larger pool and that additional

mitigation may be required. The USFWS is waiting for the final wetland delineation to determine impact acreage and mitigation requirements. In addition, USFWS has requested that the vernal pool creation component be conducted off-site. Minor comments were received from the RWQCB and will be incorporated into the Draft Final document.

r) **Soils Management Plan,** first draft has been submitted for review and comments. Permit process step-by-step procedures handout and operational instructions are being developed.

2. REMEDIAL PROJECT MANAGERS (RPMs) DECISIONS/ISSUES/ITEMS TO BE RESOLVED:

- VOC Proposed Plan Alternative Dispute Resolution (ADR)
- Biological Opinion
- Institutional Controls Process
- Radiation Contamination Site Conceptual Model

3. DOCUMENT STATUS REPORT: See attached for detailed listing of documents.

- CS-10 Removal Action Workplan (RAWP)
- Field Sampling Plan (FSP) for Airfield Radiological Survey
- VOC Proposed Plan and Record of Decision
- Final Status Survey Reports (FSSRs) for Building Radiological Surveys

4. POLICIES: New Air Force Base Conversion Agency (AFBCA) Operating Procedures for Management of Lead-Based Paint.

Document Deliverable Status Report

Previous 45 Days

MidMonthJune2001 DSR Report

05/01/2001 - 06/15/2001

	DSR Num.	OPR	OU Code	Document Title	Cat	Doc Version	Days	Deadline Date	Deadline Type	Extension Date	Extension Reason	Completion Date
	Standard Documents											
1	572-1	PB	BW	Soils Management Manual	O	Prelim. Draft	0	05/02/2001	BCT TBD			05/02/2001
2	494-3	RS	N/A	SSSEBS: Davis Site	B	Draft Final	73	02/23/2001	BCT set	05/07/2001		05/07/2001
3	536-4	CM	BW	Rad FSP - Airfield	P	Agency Rev DF	64	03/19/2001	BCT set	05/11/2001		04/11/2001
4	495-3	RS	N/A	SFOSL: Davis Site	B	Draft Final	80	02/23/2001	BCT set	05/14/2001		05/14/2001
5	479-1	DS	BW	VZ Quarterly [CY01 - 1st] Monitoring Report	R	Final	0	05/15/2001	BCT set			05/15/2001
6	552-1	TC	BWV	Remedial Process Optimization Work Plan	O	Draft	0	05/15/2001	RPM Set			05/07/2001
7	325-1	DK	GW	RA - II BW18 DeCom Rpt (Phase V/VI)	P	Draft	0	05/17/1996	RPM Set	05/15/2001	C03, C35, F060, F151, F229, G054, G147, G197, H037	05/02/2001
8	430-1	DS	A	IC 32 SVE-EE/CA: RA Report	R	Final	0	07/13/2000	RPM Set	05/15/2001	G085, G152, G169, H009, H021	05/17/2001
9	506-1	ME	C	Creeks Conceptual Site Model	S	Draft	0	01/15/2001	RPM Set	05/15/2001		05/15/2001
10	353-3	RS	N/A	SSSEBS: River Dock	B	Draft Final	95	02/23/2001	BCT set	05/22/2001		05/22/2001
11	543-3	CM	C	CS-10 RAWP (Removal Action Work Plan)	P	Draft Final	48	04/25/2001	BCT set	05/24/2001	H075, H080, H086	05/25/2001
12	547-2	RS	N/A	FOST: Capehart Housing/Golf Course	B	Agency Rev D	38	05/18/2001	BCT set	05/25/2001		05/25/2001
13	494-4	RS	N/A	SSSEBS: Davis Site	B	Agency Rev. DF	18	05/25/2001	BCT set	05/25/2001		05/25/2001
14	495-4	RS	N/A	SFOSL: Davis Site	B	Agency Rev. DF	11	05/25/2001	BCT set	05/25/2001		05/25/2001
15	238-3	DG	C	CS-10 NT RAC Comp Rpt	O	Draft Final	0	05/30/2001	RPM Set			06/01/2001
16	456-1	DS	C	PRL 66 SVE-EE/CA: Startup Memorandum	R	Final	0	12/12/2000	RPM Set	05/30/2001	G186, H029	06/01/2001
17	238-2	DG	C	CS-10 NT RAC Comp Rpt	O	Agency Rev D	30	04/30/2001	RPM Set	05/30/2001		04/30/2001
18	420-5	RS	BW	SFOSL: Group 8 Facilities	B	Final	57	05/31/2001	BCT set			05/29/2001
19	536-5	CM	BW	Rad FSP - Airfield	P	Draft Final 2	20	05/17/2001	BCT set	05/31/2001	H074, H097, H107	05/31/2001
20	538-3	DK	H	Bldg 258 Consensus Statement	O	Draft Final	52	04/30/2001	BCT set	06/04/2001		06/14/2001
21	352-3	RS	N/A	FOST: River Dock	B	Draft Final	110	02/23/2001	BCT set	06/06/2001		06/06/2001
22	419-5	RS	BW	SSSEBS: Group 8 Facilities	B	Final	64	06/07/2001	BCT set			05/29/2001
23	573-1	DS	BW	Basewide RA Work Plan for SVE Supplement	R	Final	0	06/08/2001	RPM Set			06/20/2001
24	440-5	WR	B1	OU B1 Data Gap RICS Addendum	P	Final	143	04/02/2001	RPM Set	06/08/2001	H041, H057	06/08/2001
25	543-4	CM	C	CS-10 RAWP (Removal Action Work Plan)	P	Agency Rev DF	15	05/31/2001	BCT set	06/08/2001	H109	06/07/2001
26	536-6	CM	BW	Rad FSP - Airfield	P	Agency Rev DF2	11	06/11/2001	BCT set			06/14/2001
27	366-5	WR	C1	OU C1 Data Gap RICS Addendum	P	Final	149	04/02/2001	IAG Set	06/14/2001	H040, H058, H085, H106	06/14/2001

	DSR Num.	OPR	OU Code	Document Title	Cat	Doc Version	Days	Deadline Date	Deadline Type	Extension Date	Extension Reason	Completion Date
	Extra Documents											
28	530-3	SD	A	Rad FSSR - Bldg 610	B	Draft Final	11	04/27/2001	BCT set	05/01/2001		05/01/2001
29	442-3	SD	B	Rad FSSR - Bldg 700	B	Draft Final	54	05/02/2001	BCT set			05/01/2001
30	530-4	SD	A	Rad FSSR - Bldg 610	B	Agency Rev DF	13	05/01/2001	BCT set	05/14/2001		05/15/2001
31	442-4	SD	B	Rad FSSR - Bldg 700	B	Agency Rev DF	21	05/09/2001	BCT set	05/23/2001		05/22/2001
32	503-2	SD	B	Rad FSSR - Bldg 704	B	Agency Rev. D	25	05/11/2001	BCT set	05/25/2001		05/15/2001
33	530-5	SD	A	Rad FSSR - Bldg 610	B	Final	25	05/25/2001	BCT set	06/08/2001		06/06/2001
34	442-5	SD	B	Rad FSSR - Bldg 700	B	Final	16	05/30/2001	BCT set	06/08/2001		06/06/2001
35	393-1	SD	A	Rad FSSR - Bldg 360	B	Draft	0	06/09/2000	BCT set	06/14/2001		06/15/2001

CM	Craig Marchione
DG	Dave Green
DK	Diane Kiyota
DS	Doug Self
ME	Molly Enloe
PB	Paul Bernheisel
RS	Rick Solander
SD	Scott Dickinson
TC	Tim Chapman
WR	Werner Raab

Document Deliverable Status Report

Next 45 Days

MidMonthJune2001 DSR Report

06/16/2001 - 07/31/2001

	DSR Num.	OPR	OU Code	Document Title	Cat	Doc Version	Days	Deadline Date	Deadline Type	Extension Date	Extension Reason	Completion Date
	Standard Documents											
1	352-4	RS	N/A	FOST: River Dock	B	Agency Rev DF	15	06/21/2001	BCT set			
2	353-4	RS	N/A	SSSEBS: River Dock	B	Agency Rev. DF	30	06/08/2001	BCT set	06/21/2001		
3	536-7	CM	BW	Rad FSP - Airfield	P	Final	14	06/15/2001	BCT set	06/25/2001	H110, H113	
4	543-5	CM	C	CS-10 RAWP (Removal Action Work Plan)	P	Final	17	06/15/2001	BCT set	06/25/2001	H112	
5	538-4	DK	H	Bldg 258 Consensus Statement	O	Agency Rev DF	24	05/15/2001	BCT set	06/28/2001		
6	574-1	CM	B	Rad FSP - Low Lying Areas	S	Draft	0	06/29/2001	RPM Set			
7	497-1	RS	BW	Reuse EIR	O	Draft	0	06/29/2001	LRA set			
8	181-1	TC	BWV	Passive SVE Tech Memo	S	Draft	0	05/19/1999	RPM Set	06/29/2001	F094, F185, G041, G097, G175, H013, H060, H082	
9	292-1	TC	GW	Enhanced DNAPL Extraction Tech Memo	S	Draft	0	07/09/1999	RPM Set	06/29/2001	F109, F207, G103, H004, H014, H055, H061, H084	
10	386-1	TC	GW	Aggressive Remediation Tech Memo	S	Draft	0	01/19/2001	RPM Set	06/29/2001	G018, H083	
11	449-1	DS	A	IC 25 SVE-EE/CA: Interim RA Report	R	Final	0	02/05/2001	RPM Set	06/29/2001	H020, H072	
12	509-1	SM	IP	LRA Initial Parcel / FS	P	Draft	0	03/30/2001	IAG Set	06/29/2001		
13	507-2	ME	C	Stuck Truck Restoration Plan	O	Agency Rev D	175	05/01/2001	RPM Set	06/29/2001		
14	471-2	DK	GW	GMP Quarterly [CY00-4th] Report	O	Agency Rev F	76	05/29/2001	RPM Set	06/29/2001		
15	552-2	TC	BWV	Remedial Process Optimization Work Plan	O	Agency Rev. D	45	06/14/2001	RPM Set	06/29/2001		
16	325-2	DK	GW	RA - II BW18 DeCom Rpt (Phase V/VI)	P	Agency Rev D	45	06/14/2001	RPM Set	06/29/2001		
17	547-3	RS	N/A	FOST: Capehart Housing/Golf Course	B	Draft Final	35	06/15/2001	BCT set	06/29/2001		
18	325-3	DK	GW	RA - II BW18 DeCom Rpt (Phase V/VI)	P	Final	1	06/30/2001	RPM Set			
19	336-3	DK	GW	Well Abandonment Summary Memorandum	P	Final	0	06/30/1999	IAG Set	06/30/2001	F146, F227, G055, G206, H038	
20	479-2	DS	BW	VZ Quarterly [CY01 - 1st] Monitoring Report	R	Agency Rev F	48	07/02/2001	BCT set			
21	554-1	WR	A	OU A RICS Addendum	P	Draft	0	06/19/2001	RPM Set	07/02/2001	H105	
22	226-6	DK	BWV	VOC Proposed Plan	P	Draft Final 3	474	07/14/2000	RPM Set	07/09/2001	G052, G080, G116, G139, G171, H005, H011, H051,	
23	331-3	DK	GW	RD - III Work Plan	P	Draft Final	129	04/10/2001	RPM Set	07/09/2001	G121, H063, H078, H101	
24	538-5	DK	H	Bldg 258 Consensus Statement	O	Final	14	05/30/2001	BCT set	07/12/2001		
25	574-2	CM	B	Rad FSP - Low Lying Areas	S	Agency Rev D	14	07/13/2001	RPM Set			
26	506-2	ME	C	Creeks Conceptual Site Model	S	Agency Rev D	59	07/13/2001	RPM Set			
27	452-1	DS	B	PRL S-13 SVE-EE/CA: Startup Memorandum	R	Final	0	12/12/2000	RPM Set	07/13/2001	G184, H024, H090	

	DSR Num.	OPR	OU Code	Document Title	Cat	Doc Version	Days	Deadline		Extension		Completion Date
								Date	Type	Date	Reason	
28	454-1	DS	B	SSA-2 SVE-EE/CA: Startup Memorandum	R	Final	0	12/19/2000	RPM Set	07/13/2001	G185, H025, H091	
29	494-5	RS	N/A	SSSEBS: Davis Site	B	Final	49	06/29/2001	BCT set	07/13/2001		
30	495-5	RS	N/A	SFOSL: Davis Site	B	Final	49	06/29/2001	BCT set	07/13/2001		
31	472-1	DK	GW	GMP Quarterly (CY01-1st) Report	O	Final	0	07/14/2001	RPM Set			
32	451-1	DS	B	IC 5 SVE-EE/CA: Interim RA Report	R	Final	0	02/05/2001	RPM Set	07/15/2001	H036, H071	
33	457-1	DS	C	PRL 66 SVE-EE/CA: Interim RA Report	R	Final	0	02/19/2001	RPM Set	07/15/2001	H028, H073	
34	226-7	DK	BWV	VOC Proposed Plan	P	Agency Rev DF3	7	07/16/2001	IAG Set		G117, G140	
35	450-1	DS	B	IC 5 SVE-EE/CA: Startup Memorandum	R	Final	0	11/20/2000	RPM Set	07/16/2001	G183, H023, H088, H089, H111	
36	547-4	RS	N/A	FOST: Capehart Housing/Golf Course	B	Agency Rev DF	21	07/20/2001	BCT set			
37	402-4	DS	BW	Basewide RA Work Plan for SVE	R	Agency Rev DF	81	04/30/2001	RPM Set	07/20/2001	H070, H104	
38	226-8	DK	BWV	VOC Proposed Plan	P	Final	7	07/23/2001	IAG Set		G118, G141	
39	574-3	CM	B	Rad FSP - Low Lying Areas	S	Draft Final	10	07/23/2001	RPM Set			
40	228-1	DK	BWV	VOC ROD	P	Draft	0	02/01/1999	IAG Set	07/23/2001	E143, E69, F158, F205, F209, F237, G028, G053, G109,	
41	396-2	WR	B	OU B Data Gap RICS Addendum	P	Agency Rev D	259	04/23/2001	RPM Set	07/23/2001	G199, H019, H039, H053, H059, H069, H095, H114	
42	402-5	DS	BW	Basewide RA Work Plan for SVE	R	Final	6	05/30/2001	RPM Set	07/26/2001	H092	
43	77-9	WR	A	OU A RICS	P	Final	183	03/26/2001	RPM Set	07/27/2001	E107, E115, F006, G189, H054, H087, H108	
44	181-2	TC	BWV	Passive SVE Tech Memo	S	Agency Rev D	31	07/30/2001	RPM Set			
45	574-4	CM	B	Rad FSP - Low Lying Areas	S	Agency Rev DF	7	07/30/2001	RPM Set			
46	292-2	TC	GW	Enhanced DNAPL Extraction Tech Memo	S	Agency Rev D	31	07/30/2001	RPM Set			
47	507-3	ME	C	Stuck Truck Restoration Plan	O	Draft Final	31	07/30/2001	RPM Set			
48	552-3	TC	BWV	Remedial Process Optimization Work Plan	O	Final	31	07/30/2001	RPM Set			
49	386-2	TC	GW	Aggressive Remediation Tech Memo	S	Agency Rev D	31	07/30/2001	RPM Set			
50	290-1	TC	GW	Catalyzed Ozonation Tech Memo	O	Draft	0	04/30/1999	RPM Set	07/30/2001	F105	
51	571-1	DG	BW	Rad BW CSM	P	Draft	0	07/31/2001	BCT set			
52	353-5	RS	N/A	SSSEBS: River Dock	B	Final	40	07/31/2001	BCT set			
53	352-5	RS	N/A	FOST: River Dock	B	Complete	40	07/31/2001	BCT set			
	Extra Documents											
54	436-8	SD	A	Rad FSSR - Bldg 644	B	Agency Rev DF3	110	03/29/2001	BCT set	06/27/2001		
55	393-2	SD	A	Rad FSSR - Bldg 360	B	Agency Rev D	15	06/29/2001	BCT set			
56	503-3	SD	B	Rad FSSR - Bldg 704	B	Draft Final	35	06/05/2001	BCT set	06/29/2001		
57	499-1	SD	B	Rad FSSR - Bldg 655	B	Draft	0	12/15/2000	BCT set	07/06/2001		
58	551-1	SD	A	Rad FSSR - Bldg 250M	B	Draft	0	04/20/2001	BCT set	07/06/2001		

	DSR Num.	OPR	OU Code	Document Title	Cat	Doc Version	Days	Deadline		Extension		Completion Date
								Date	Type	Date	Reason	
59	549-1	SD	A	Rad FSSR - Bldgs 351, & 368	B	Draft	0	04/20/2001	BCT set	07/06/2001		
60	498-2	SD	A	Rad FSSR - Bldg 458	B	Agency Rev. D	250	12/12/2000	BCT set	07/11/2001		
61	503-4	SD	B	Rad FSSR - Bldg 704	B	Agency Rev. DF	14	07/13/2001	BCT set			
62	393-3	SD	A	Rad FSSR - Bldg 360	B	Draft Final	14	07/13/2001	BCT set			
63	436-9	SD	A	Rad FSSR - Bldg 644	B	Final	16	07/13/2001	BCT set			
64	504-1	SD	C	Rad FSSR - Bldg 722; Bays 7, 9, 10, 11, and 12	B	Draft	0	01/15/2001	BCT set	07/13/2001		
65	569-1	SD	A	Rad FSSR - Bldg 253	B	Draft	0	07/16/2001	BCT set			
66	392-3	SD	A	Rad FSSR - Bldg 640	B	Draft Final	578	12/08/2000	BCT set	07/17/2001		
67	540-1	SD	H	Rad FSSR - Bldg 237	B	Draft	0	04/03/2001	BCT set	07/17/2001		
68	501-2	SD	A	Rad FSSR - Bldg 362	B	Agency Rev D	231	02/02/2001	RPM Set	07/18/2001		
69	487-4	SD	A	Rad FSSR - Bldg 56	B	Agency Rev DF	93	05/16/2001	BCT set	07/18/2001		
70	542-2	SD	C	Rad FSSR - Bldg 721	B	Agency Rev D	124	05/16/2001	BCT set	07/18/2001		
71	500-1	SD	B	Rad FSSR - Bldg 624	B	Draft	0	12/11/2000	BCT set	07/19/2001		
72	498-3	SD	A	Rad FSSR - Bldg 458	B	Draft Final	9	07/20/2001	BCT set			
73	502-1	SD	B	Rad FSSR - Bldg 658	B	Draft	0	01/03/2001	BCT set	07/23/2001		
74	393-4	SD	A	Rad FSSR - Bldg 360	B	Agency Rev DF	11	07/24/2001	BCT set			
75	501-3	SD	A	Rad FSSR - Bldg 362	B	Draft Final	9	07/27/2001	RPM Set			
76	503-5	SD	B	Rad FSSR - Bldg 704	B	Final	14	07/27/2001	BCT set			
77	542-3	SD	C	Rad FSSR - Bldg 721	B	Draft Final	9	07/27/2001	BCT set			
78	487-5	SD	A	Rad FSSR - Bldg 56	B	Final	9	07/27/2001	BCT set			

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SD	Scott Dickinson
SM	Steve Mayer
TC	Tim Chapman
WR	Werner Raab

PROTECTING PUBLIC HEALTH

- **Agency for Toxic Substances and Disease Registry (ATSDR)**
  - Dave Green, AFBCA
- **Cleanup 5 Year Review**
  - Joe Healy, US EPA
- **Groundwater**
  - James Taylor, RWQCB
- **Emergency Response for Confirmed Site 10 (CS 10)**
  - Craig Marchione, AFBCA
  - Wynn Latta, Sacramento Metropolitan Fire District

AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY (ATSDR)

- AGENCY CREATED BY SUPERFUND LEGISLATION IN 1980
- U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
- MISSION: "PREVENT OR MITIGATE ADVERSE HUMAN HEALTH EFFECTS AND DIMINISHED QUALITY OF LIFE RESULTING FROM EXPOSURE TO HAZARDOUS SUBSTANCES IN THE ENVIRONMENT"
- MUST DO PUBLIC HEALTH ASSESSMENT AT NATIONAL PRIORITY LIST SITES
- MCCLELLAN ONE OF THE FIRST SITES VISITED

ATSDR PUBLIC HEALTH ASSESSMENT (PHA)

- Chronology of PHA Process at McClellan
  - March 89 - ATSDR releases Preliminary Health Assessment
  - January 91 - ATSDR visits McClellan to initiate a PHA
  - July 91 - ATSDR holds public availability sessions (off-site residents and on-site workers)
  - July 91-July 92 - ATSDR collects data
  - October 92 ATSDR meets with regulatory agencies, public representative and the Union to discuss release of PHA
  - March 94 Final PHA (blue cover) released
  - March 94 Health study begins
  - March 95 Health education planning begins
  - January 96 Final health study released
  - May 97 ATSDR health education training date
  - June 98 ATSDR follow-up health study
  - July 00 Final report - kidney biomarkers - "No association was found between living near a military base and the existence of kidney disease"

ATSDR POINT OF CONTACT

ATSDR, REGION IX
WILLIAM NELSON
75 HAWTHORNE STREET, SUITE 100
SAN FRANCISCO, CA 95105
(415) 744-2194

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

APR 26 2001

MEMORANDUM FOR BCT MEMBERS

FROM: AFBCA/DM
3411 Olson Street
McClellan AFB CA 95652-1071

SUBJECT: Spill Report, IC 29 Groundwater Treatment System

1. On 23 April 2001 at approximately 0900, a release of untreated groundwater from the IC 29 Dual Phase Treatment System was reported to AFBCA personnel. The Air Force Field Team, Groundwater System O&M Contractor and Spill Response Contractor responded. The IC 29 extraction/treatment system was shutdown at 0930. At the time of the shutdown, the IC 29 containment pad had approximately 6 inches of standing water, and water was escaping the containment pad via an open abandoned electrical conduit within the pad. The escaping water ran to an electrical junction/pull box adjacent to the IC 29 system, came to daylight, ran to a nearby storm drain, and then into Magpie Creek.

2. The flow of water into Magpie Creek was estimated to be between five and ten gallons per minute. Absorbent booms and sandbags were placed around the storm drain, and the release to the creek was stopped at 1000. Water samples were taken at the storm drain, and downstream and upstream of the release in Magpie Creek. Attachment 1 is the analytical results of these samples. The results of the water leaving the storm drain showed approximately 460 parts per billion (ppb) total volatile organic compounds (VOCs). The analysis of Magpie Creek samples both downstream and upstream were non-Detect for VOCs. The release to Magpie Creek is estimated to be less then 90 minutes in duration (the person who reported the spill was on-site when the water started escaping the containment pad at approximately 0835). The total volume of water released into Magpie Creek is estimated to be between 450 and 900 gallons. Based upon the analytical results and the volume of water released, the total mass of VOCs released into Magpie Creek is estimated to be less than 2.5 grams (attachment 2).

3. The cause of the release to Magpie Creek has two components. First, a portion of the groundwater flow from wells EW-335, EW-315, EW-321, EW-322, EW-323, EW-324 and EW 224 passed through the sump pump discharge check valve into the sump because the check valve was stuck partially open. The sump pump cycled on and off, attempting to keep up with the flow through the faulty check valve. The overload protection on the sump pump eventually tripped allowing water to start filling the pad. Second, the water rose in the bermed containment pad to approximately 6 inches when it reached the elevation of the open abandoned electrical conduit and escaped the pad. The elevations of the open conduit is lower than the pad flood switch. Therefore, the pad flood switch did not automatically shutdown the system.

4. Corrective Actions. Actions being taken to prevent recurrence of this incident are:

- Re-pipe the discharge of the sump pump directly into the system influent tank. This eliminates the check valve and the possibility of the check valve failing and permitting groundwater flow into the sump.
- Install a plug in the open conduit that allowed water to leak out of the bermed area.
- Replace the pad flood switch with one that is easier to adjust and test. The current switch is a "conductive" type switch and will be replaced with a mechanical float switch.

In addition to the specific corrective actions above, our staff will review the IRP System Engineering and O&M Evaluation report that an independent A&E contractor performed for McClellan a little over one year ago. The purpose of the review is at least three fold. First, in light of this release, recheck the report for thoroughness. Second, determine if items like the open conduit at IC 29 were identified in the report, and third, have these items been corrected by our O&M contractors.

5. The safe, incident free operations of our IRP systems are of paramount importance to our staff and contractors. We will continue to keep you apprised on our efforts to prevent releases from occurring at McClellan AFB. If you have any questions about this spill report and corrective measures in specific, or our IRP system operations in general, please call me at (916) 643-0831 ext 209.

Philip H Mook Jr

PHILIP H. MOOK, JR., P.E.
Remedial Program Manager

Attachments:
1. Analytical Results
2. VOC Mass Calculations

DISTRIBUTION:
EPA Region IX (Joe Healy)
RWQCB (James Taylor)
DTSC (Mark Malinowski)
DTSC (Kevin Depies)
AFBCA/DM (BEC) (Paul Brunner)

cc:
McClellan Admin Record

Sparger Technology, Inc.
Environmental Laboratories

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

To: Paul Bernheisel

Results from IC-29 Spill

Daryl Sattelberg
Dolver Company Inc.
8008 Carlton Rd
Sacramento, CA 95826

Client	Dolver Company Inc.
Workorder	13637 PO# 0259
Received	04/23/01

The samples were received in EPA specified containers. The samples were transported and received under documented chain of custody and stored at four (4) degrees C until analysis was performed.

Sparger Technology, Inc. ID Suffix Keys - These descriptors will follow the Sparger Technology, Inc. ID numbers and help identify the specific sample and clarify the report.

- DUP - Matrix Duplicate
- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- RPD - Relative Percent Difference
- QC - Additional Quality Control
- DIL - Results from a diluted sample

Ray James
Laboratory Director

3050 Fite Circle, Suite 112 • Sacramento, California 95827 • (916) 362-8947 • FAX (916) 362-0947

Sparger Technology, Inc.
Environmental Laboratories

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

Test Certificate of Analysis

Client ID	Dolver Company Inc.	**Workorder ID**	PO# 0259
Workorder #	13637	**Sampled**	04/23/01
Laboratory ID	13637001	**Received**	04/23/01
Sample ID	IC29-30 DRAIN	**Reported**	04/23/01
Matrix	Water		

8260B GC/MS Volatiles - 8260B

Parameter	Prep Date	Analyzed	Result	RDL	Units	Dilution
Dichlorodifluoromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Vinyl chloride	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromomethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Trichlorofluoromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Acrolein	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1-Dichloroethene	**04/23/01**	**04/23/01**	**18**	**2.0**	**ug/L**	**1:1**
Acetone	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Methyl iodide	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Carbon disulfide	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Dichloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Acrylonitrile	04/23/01	04/23/01	ND	2.0	ug/L	1:1
trans-1,2-Dichloroethene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1-Dichloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Vinyl acetate	04/23/01	04/23/01	ND	2.0	ug/L	1:1
cis-1,2-Dichloroethene	**04/23/01**	**04/23/01**	**8.6**	**2.0**	**ug/L**	**1:1**
2-Butanone (MEK)	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromochloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chloroform	**04/23/01**	**04/23/01**	**8.0**	**2.0**	**ug/L**	**1:1**
2,2-dichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,1-Trichloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1-dichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Carbon tetrachloride	**04/23/01**	**04/23/01**	**27**	**2.0**	**ug/L**	**1:1**
Benzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dichloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Dibromomethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromodichloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Trichloroethene	**04/23/01**	**04/23/01**	**400**	**2.0**	**ug/L**	**1:1**
2-Chloroethylvinyl ether	04/23/01	04/23/01	ND	2.0	ug/L	1:1
cis-1,3-Dichloropropene	04/23/01	04/23/01	ND	2.0	ug/L	1:1

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Test Certificate of Analysis

Client ID	Dolver Company Inc.	**Workorder ID**	PO# 0259
Workorder #	13637	**Sampled**	04/23/01
Laboratory ID	13637001	**Received**	04/23/01
Sample ID	IC29-30 DRAIN	**Reported**	04/23/01
Matrix	Water		

8260B GC/MS Volatiles - 8260B (continued)

Parameter	Prep Date	Analyzed	Result	RDL	Units	Dilution
4-Methyl-2-pentanone (MIBK)	04/23/01	04/23/01	ND	2.0	ug/L	1:1
trans-1,3-Dichloropropene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,2-Trichloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Toluene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dibromoethane (EDB)	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,3-Dichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Hexanone	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Dibromochloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Tetrachloroethene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,1,2-Tetrachloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Ethylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
M+P-Xylene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromoform	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Styrene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
o-Xylene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,2,2-Tetrachloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,3-Trichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Isopropylbenzene (Cumene)	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
n-Propylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Chlorotoluene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
4-Chlorotoluene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,3,5-Trimethylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
tert-Butylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,4-Trimethylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
sec-Butylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,3-Dichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,4-Dichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
4-Isopropyltoluene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
n-Butylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1

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Test Certificate of Analysis

Client ID	Dolver Company Inc.	**Workorder ID**	PO# 0259
Workorder #	13637	**Sampled**	04/23/01
Laboratory ID	13637001	**Received**	04/23/01
Sample ID	IC29-30 DRAIN	**Reported**	04/23/01
Matrix	Water		

8260B GC/MS Volatiles - 8260B (continued)

Parameter	Prep Date	Analyzed	Result	RDL	Units	Dilution
1,2-Dibromo-3-chloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,4-Trichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Naphthalene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Hexachlorobutadiene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,3-Trichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1

Surrogates	Result	Recovery	Limits
1,2-Dichloroethane-d4	49 ug/L	98 %	(76 - 135)
Toluene d8	55 ug/L	110 %	(88 - 118)
4-Bromofluorobenzene	40 ug/L	80 %	(86 - 121)

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Client ID	Dolver Company Inc.	**Workorder ID**	PO# 0259
Workorder #	13637	**Sampled**	04/23/01
Laboratory ID	13637002	**Received**	04/23/01
Sample ID	IC29-30 UPSTREAM	**Reported**	04/23/01
Matrix	Water		

8260B GC/MS Volatiles - 8260B

Parameter	Prep Date	Analyzed	Result	RDL	Units	Dilution
Dichlorodifluoromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Vinyl chloride	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromomethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Trichlorofluoromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Acrolein	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1-Dichloroethene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Acetone	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Methyl iodide	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Carbon disulfide	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Dichloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Acrylonitrile	04/23/01	04/23/01	ND	2.0	ug/L	1:1
trans-1,2-Dichloroethene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1-Dichloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Vinyl acetate	04/23/01	04/23/01	ND	2.0	ug/L	1:1
cis-1,2-Dichloroethene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Butanone (MEK)	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromochloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chloroform	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2,2-dichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,1-Trichloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1-dichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Carbon tetrachloride	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Benzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dichloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Dibromomethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromodichloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Trichloroethene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Chloroethylvinyl ether	04/23/01	04/23/01	ND	2.0	ug/L	1:1
cis-1,3-Dichloropropene	04/23/01	04/23/01	ND	2.0	ug/L	1:1

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Test Certificate of Analysis

Client ID	Dolver Company Inc.	**Workorder ID**	PO# 0259
Workorder #	13637	**Sampled**	04/23/01
Laboratory ID	13637002	**Received**	04/23/01
Sample ID	IC29-30 UPSTREAM	**Reported**	04/23/01
Matrix	Water		

8260B GC/MS Volatiles - 8260B (continued)

Parameter	Prep Date	Analyzed	Result	RDL	Units	Dilution
4-Methyl-2-pentanone (MIBK)	04/23/01	04/23/01	ND	2.0	ug/L	1:1
trans-1,3-Dichloropropene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,2-Trichloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Toluene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dibromoethane (EDB)	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,3-Dichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Hexanone	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Dibromochloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Tetrachloroethene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,1,2-Tetrachloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Ethylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
M+P-Xylene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromoform	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Styrene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
o-Xylene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,2,2-Tetrachloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,3-Trichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Isopropylbenzene (Cumene)	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
n-Propylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Chlorotoluene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
4-Chlorotoluene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,3,5-Trimethylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
tert-Butylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,4-Trimethylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
sec-Butylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,3-Dichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,4-Dichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
4-Isopropyltoluene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
n-Butylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1

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Test Certificate of Analysis

Client ID	Dolver Company Inc.	**Workorder ID**	PO# 0259
Workorder #	13637	**Sampled**	04/23/01
Laboratory ID	13637002	**Received**	04/23/01
Sample ID	IC29-30 UPSTREAM	**Reported**	04/23/01
Matrix	Water		

8260B GC/MS Volatiles - 8260B (continued)

Parameter	Prep Date	Analyzed	Result	RDL	Units	Dilution
1,2-Dibromo-3-chloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,4-Trichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Naphthalene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Hexachlorobutadiene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,3-Trichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1

Surrogates	Result	Recovery	Limits
1,2-Dichloroethane-d4	56 ug/L	112 %	(76 - 135)
Toluene d8	52 ug/L	104 %	(88 - 118)
4-Bromofluorobenzene	68 ug/L	136 %	(86 - 121)

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Test Certificate of Analysis

Client ID	Dolver Company Inc.	**Workorder ID**	PO# 0259
Workorder #	13637	**Sampled**	04/23/01
Laboratory ID	13637003	**Received**	04/23/01
Sample ID	IC29-30 DOWNSTREAM	**Reported**	04/23/01
Matrix	Water		

8260B GC/MS Volatiles - 8260B

Parameter	Prep Date	Analyzed	Result	RDL	Units	Dilution
Dichlorodifluoromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Vinyl chloride	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromomethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Trichlorofluoromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Acrolein	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1-Dichloroethene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Acetone	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Methyl iodide	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Carbon disulfide	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Dichloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Acrylonitrile	04/23/01	04/23/01	ND	2.0	ug/L	1:1
trans-1,2-Dichloroethene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1-Dichloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Vinyl acetate	04/23/01	04/23/01	ND	2.0	ug/L	1:1
cis-1,2-Dichloroethene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Butanone (MEK)	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromochloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chloroform	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2,2-dichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,1-Trichloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1-dichloropropene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Carbon tetrachloride	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Benzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dichloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Dibromomethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromodichloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Trichloroethene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Chloroethylvinyl ether	04/23/01	04/23/01	ND	2.0	ug/L	1:1
cis-1,3-Dichloropropene	04/23/01	04/23/01	ND	2.0	ug/L	1:1

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Test Certificate of Analysis

Client ID	Dolver Company Inc.	**Workorder ID**	PO# 0259
Workorder #	13637	**Sampled**	04/23/01
Laboratory ID	13637003	**Received**	04/23/01
Sample ID	IC29-30 DOWNSTREAM	**Reported**	04/23/01
Matrix	Water		

8260B GC/MS Volatiles - 8260B (continued)

Parameter	Prep Date	Analyzed	Result	RDL	Units	Dilution
4-Methyl-2-pentanone (MIBK)	04/23/01	04/23/01	ND	2.0	ug/L	1:1
trans-1,3-Dichloropropene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,2-Trichloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Toluene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dibromoethane (EDB)	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,3-Dichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Hexanone	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Dibromochloromethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Tetrachloroethene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,1,2-Tetrachloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Ethylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
M+P-Xylene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromoform	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Styrene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
o-Xylene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,2,2-Tetrachloroethane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,3-Trichloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Isopropylbenzene (Cumene)	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
n-Propylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Chlorotoluene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
4-Chlorotoluene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,3,5-Trimethylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
tert-Butylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,4-Trimethylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
sec-Butylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,3-Dichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,4-Dichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
4-Isopropyltoluene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
n-Butylbenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1

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Test Certificate of Analysis

Client ID	Dolver Company Inc.	**Workorder ID**	PO# 0259
Workorder #	13637	**Sampled**	04/23/01
Laboratory ID	13637003	**Received**	04/23/01
Sample ID	IC29-30 DOWNSTREAM	**Reported**	04/23/01
Matrix	Water		

8260B GC/MS Volatiles - 8260B (continued)

Parameter	Prep Date	Analyzed	Result	RDL	Units	Dilution
1,2-Dibromo-3-chloropropane	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,4-Trichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Naphthalene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Hexachlorobutadiene	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,3-Trichlorobenzene	04/23/01	04/23/01	ND	2.0	ug/L	1:1

Surrogates	Result	Recovery	Limits
1,2-Dichloroethane-d4	49 ug/L	98 %	(76 - 135)
Toluene d8	51 ug/L	102 %	(88 - 118)
4-Bromofluorobenzene	38 ug/L	76 %	(86 - 121)

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Method Blank Report

Client ID Dolver Company Inc.
Workorder ID PO# 0259
Laboratory ID 27166
Sample ID MB for HBN 43923 [VMXV/1437]
Matrix Water

Parameter	Method	Prep Date	Analyzed	Result	RDL	Units	Dilution
Dichlorodifluoromethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chloromethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Vinyl chloride	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromomethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chloroethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Trichlorofluoromethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Acrolein	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1-Dichloroethene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Acetone	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Methyl iodide	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Carbon disulfide	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Dichloromethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Acrylonitrile	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
trans-1,2-Dichloroethene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1-Dichloroethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Vinyl acetate	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
cis-1,2-Dichloroethene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Butanone (MEK)	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromochloromethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chloroform	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2,2-dichloropropane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,1-Trichloroethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1-dichloropropane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Carbon tetrachloride	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Benzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dichloroethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Dibromomethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromodichloromethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dichloropropane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Trichloroethene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Chloroethylvinyl ether	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
cis-1,3-Dichloropropene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
4-Methyl-2-pentanone (MIBK)	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1

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Method Blank Report

Client ID	Dolver Company Inc.
Workorder ID	PO# 0259
Laboratory ID	27166
Sample ID	MB for HBN 43923 [VMXV/1437]
Matrix	Water

Parameter	Method	Prep Date	Analyzed	Result	RDL	Units	Dilution
(continued)							
trans-1,3-Dichloropropene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,2-Trichloroethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Toluene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dibromoethane (EDB)	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,3-Dichloropropane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Hexanone	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Dibromochloromethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Tetrachloroethene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,1,2-Tetrachloroethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Chlorobenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Ethylbenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
M-P-Xylene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromoform	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Styrene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
o-Xylene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,1,2,2-Tetrachloroethane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,3-Trichloropropane	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Isopropylbenzene (Cumene)	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Bromobenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
n-Propylbenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
2-Chlorotoluene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
4-Chlorotoluene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,3,5-Trimethylbenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
tert-Butylbenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,4-Trimethylbenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
sec-Butylbenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,3-Dichlorobenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,4-Dichlorobenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
4-Isopropyltoluene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2-Dichlorobenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
n-Butylbenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1

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Method Blank Report

Client ID	Dolver Company Inc.
Workorder ID	PO# 0259
Laboratory ID	27166
Sample ID	MB for HBN 43923 [VMXV/1437]
Matrix	Water

Parameter	Method	Prep Date	Analyzed	Result	RDL	Units	Dilution
(continued)							
1,2-Dibromo-3-chloroprope	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,4-Trichlorobenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Naphthalene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
Hexachlorobutadiene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1
1,2,3-Trichlorobenzene	8260B	04/23/01	04/23/01	ND	2.0	ug/L	1:1

Surrogates	Result	Recovery	Limits
1,2-Dichloroethane-d4	52 ug/L	104 %	(76 - 135)
Toluene d8	56 ug/L	112 %	(88 - 118)
4-Bromofluorobenzene	55 ug/L	110 %	(86 - 121)

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Lab Control Sample Report

Client ID Dolver Company Inc.
Workorder ID PO# 0259
Laboratory ID 27167
Sample ID LCS for HBN 43923 [VMXV/1437]
Matrix Water

Parameter	Method	Prep Date	Analyzed	Result	RDL	Units	Dilution
1,1-Dichloroethene	8260B	04/23/01	04/23/01	50	2.0	ug/L	1:1
Benzene	8260B	04/23/01	04/23/01	53	2.0	ug/L	1:1
Trichloroethene	8260B	04/23/01	04/23/01	53	2.0	ug/L	1:1
Toluene	8260B	04/23/01	04/23/01	53	2.0	ug/L	1:1
Chlorobenzene	8260B	04/23/01	04/23/01	48	2.0	ug/L	1:1

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Lab Control Sample Duplicate Report

Client ID	Dolver Company Inc.
Workorder ID	PO# 0259
Laboratory ID	27168
Sample ID	LCSD for HBN 43923 [VMXV/1437]
Matrix	Water

Parameter	Method	Prep Date	Analyzed	Result	RDL	Units	Dilution
1,1-Dichloroethene	8260B	04/23/01	04/23/01	53	2.0	ug/L	1:1
Benzene	8260B	04/23/01	04/23/01	58	2.0	ug/L	1:1
Trichloroethene	8260B	04/23/01	04/23/01	58	2.0	ug/L	1:1
Toluene	8260B	04/23/01	04/23/01	59	2.0	ug/L	1:1
Chlorobenzene	8260B	04/23/01	04/23/01	50	2.0	ug/L	1:1

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Matrix Spike Report

Client ID	Dolver Company Inc.
Workorder ID	PO# 0259
Laboratory ID	27169
Sample ID	MS for HBN 43923 [VMXV/1437]
Matrix	Water

Parameter	Method	Prep Date	Analyzed	Result	RDL	Units	Dilution
1,1-Dichloroethene	8260B	04/23/01	04/23/01	53	2.0	ug/L	1:1
Benzene	8260B	04/23/01	04/23/01	60	2.0	ug/L	1:1
Trichloroethene	8260B	04/23/01	04/23/01	57	2.0	ug/L	1:1
Toluene	8260B	04/23/01	04/23/01	54	2.0	ug/L	1:1
Chlorobenzene	8260B	04/23/01	04/23/01	51	2.0	ug/L	1:1

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Matrix Spike Duplicate Report

Client ID Dolver Company Inc.
Workorder ID PO# 0259
Laboratory ID 27170
Sample ID MSD for HBN 43923 [VMXV/1437]
Matrix Water

Parameter	Method	Prep Date	Analyzed	Result	RDL	Units	Dilution
1,1-Dichloroethene	8260B	04/23/01	04/23/01	49	2.0	ug/L	1:1
Benzene	8260B	04/23/01	04/23/01	57	2.0	ug/L	1:1
Trichloroethene	8260B	04/23/01	04/23/01	53	2.0	ug/L	1:1
Toluene	8260B	04/23/01	04/23/01	51	2.0	ug/L	1:1
Chlorobenzene	8260B	04/23/01	04/23/01	49	2.0	ug/L	1:1

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QC SUMMARY

Client ID	Dolver Company Inc.
Workorder ID	PO# 0259
QC Batch	VMX 1476
Matrix	Water
Original Samples	13637003 Matrix Spike [27169] Matrix Spike Duplicate [27170]

Parameter	Spike %Recovery	Spike Dup %Recovery	Recovery Limits	RPD	RPD Limits
1,1-Dichloroethene	106	98	(61-145)	7.8	(20 MAX)
Benzene	120	114	(76-127)	5.1	(20 MAX)
Trichloroethene	114	106	(71-135)	7.3	(20 MAX)
Toluene	108	102	(76-130)	5.7	(20 MAX)
Chlorobenzene	102	98	(75-130)	4.0	(20 MAX)

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QC SUMMARY

Client ID Dolver Company Inc.
Workorder ID PO# 0259
QC Batch VMX 1476
Matrix Water

Samples Lab Control Sample [27167]
Lab Control Sample Duplicate [27168]

Parameter	Check %Recovery	Check Dup %Recovery	Recovery Limits	RPD	RPD Limits
1,1-Dichloroethene	100	106	(65-145)	5.8	(20 MAX)
Benzene	106	116	(71-127)	9.0	(20 MAX)
Trichloroethene	106	116	(75-135)	9.0	(20 MAX)
Toluene	106	118	(76-135)	11	(20 MAX)
Chlorobenzene	96	100	(76-135)	4.1	(20 MAX)

Untreated GW release at IC 29 treatment system.

Estimated Volume of water calculations discharged to Magpie Creek:

10 gpm for 90 mins = 900 gallons ◀

Mass of VOC calculations:

From the analytical results of the untreated GW entering the creek VOCs were at 461 ppb. total primarily TCE (400ppb).

Volume of VOC = 900 gallons x 461×10^{-9} = 4.15×10^{-4} gal

Mass of VOC = Vol of VOC x Mass of H_2O x Sp. Gr. of VOC

= 4.15×10^{-4} gal x 8.3 lbs/gal x 1.46 Sp Gr TCE

= 5.03×10^{-3} lbs

= 2.28 grams ◀

Atch 2